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|-------------------------------|------------------------|---------------------|--|
| Notice of Allowability | Application No. | Applicant(s) | |
| | 10/600,811 | MARGRAFF ET AL. | |
| | Examiner | Art Unit | |
| | Ernest G. Therkorn | 1723 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to December 10, 2004.
2. ☒ The allowed claim(s) is/are 1-18.
3. ☒ The drawings filed on 20 June 2003 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413), Paper No./Mail Date _____. |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

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An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

The amendment of December 10, 2004 has been cancelled. The claims have been changed back to their original June 20, 2003 form with the exception in claim 12 of correcting the spelling of aluminum. The final version of the claims appears below with claim 19 cancelled:

1. (Original) Rotating device for a centrifugal partition chromatograph, comprising at least one cylindrical body that can be driven in rotation around its axis, the said cylindrical body comprising several cells with a height less than a determined height, with an elongated shape arranged along a direction with a radial component with regard to the rotation axis of the said body and being connected to each other in series through ducts internal to the body and external ducts, characterised in that the thick-walled single piece cylindrical body has a height at least twice as high as the said determined height, the said cells being arranged at several different heights in the body, the internal ducts in the body being arranged along a direction with a radial component.
2. (Original) Device according to claim 1, in which the cells, arranged side by side in the body and connected in series to each other by inlet and outlet ducts opening up at the ends opposite the said cells, are distributed in a helical spiral around the rotation axis of the body.
3. (Original) Device according to claim 1, in which the cells, arranged side by side in the said body and connected to each other in series by inlet and outlet ducts opening up

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at the ends opposite the said cells, are distributed by successive planes orthogonal to the rotation axis of the body.

4. (Original) Device according to claim 1, in which the cylindrical body comprises several open cavities on the side of the outer wall of the said body, each cavity opening up on one face of the body through an enlarged opening to insert an associated internal duct, first removable closing means covering the said opening and associated with a perforated partition to form a communication channel between the cavity and the associated internal duct.

5. (Original) Device according to claim 1, in which the cylindrical body comprises several open cavities on the inside and outside of the body, the cavities being closed by closing means comprising cylindrical parts in which communication channels are hollowed out to connect a cavity to an associated internal duct, the said closing means being assembled on each side of the cylindrical body by strapping.

6. (Original) Device according to claim 1, in which the cylindrical body comprises several open cavities on the side of the outer wall of the said body, each cavity comprising several housings to insert several cells with their associated internal ducts, first removable closing means covering the cells and the internal ducts in the same cavity.

7. (Original) Device according to claim 4, in which the said first closing means comprise a plug, a sealed partition forming a sealing element on the body, and at least one plug attachment element on the body, the plug coming into contact with the sealing element.

8. (Original) Device according to claim 4, in which the first closing means comprise a plug provided with a seal placed on a contact surface of the opening of the cavity, the plug comprising at least one recess to form a connecting channel between a cell and the associated internal duct.

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9. (Original) Device according to claim 7, in which the plug is held directly or indirectly by a screwing element.

10. (Original) Device according to claim 4, in which the cavities also comprise an opening on the side of the inner wall of the cylindrical body, the cross section of the said opening being smaller than a median cross section of the cavity and communicating with a connecting channel between a cavity and an internal duct associated with the adjacent cavity, the said channel being formed by a recess in the second closing means.

11. (Original) Device according to claim 10, in which the second closing means are held in place on the inner wall by attachment means and are in contact with a seal.

12. (Amended) Device according to claim 1, in which the single piece cylindrical body, comprising titanium and / or aluminum, has an outside diameter of between 20 cm and 2 m and comprises at least 50 housings of cells.

13. (Original) Device according to claim 1, in which the cylindrical body comprises an alternating series of cells and ducts arranged in a synthetic resin block formed by moulding.

14. (Original) Device according to claim 1, in which the said determined height is between 2 and 50 mm, the cells being identical to each other and having their largest dimension oriented along a radial direction.

15. (Original) Device according to claim 1, in which the thickness of the cylindrical body between its inner wall and outer wall is between 25 and 500 mm, the largest dimension of the cells being between 0.2 and 0.95 times the said thickness of the body and oriented along a radial direction.

16. (Original) Device according to claim 1, in which the body comprises an associated opening for each cell and a dispersion element for the cell lining.

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17. (Original) Device according to claim 1, in which the cells comprise a titanium or stainless steel or fluorinated polymer internal surface, the internal volume of the cells being between 5 and 200 cm³.

18. (Original) Device according to claim 1, in which an external metal pipe connects the cells to the internal ducts, the ends of the external pipe being fitted with Swagelock type connectors.

19. (Cancelled)

Authorization for this examiner's amendment was given in a telephone interview with Joseph V. Gamberdell, Jr. on January 19, 2005.

In the specification, page 5, after line 11, the following title has been inserted:

- - Brief Description of the Drawings - -

On page 5, after line 25, the following title has been inserted:

- - Description of the Preferred Embodiments - -

The following is an examiner's statement of reasons for allowance: U.S. Patent No. 4,968,428 and French Patent No. 2,791,578 (with it U.S. equivalent U.S. Patent No. 6,537,452) are considered to be the closest art because they disclose similar devices. The case has been allowed because the claimed combination would not have been obvious from U.S. Patent No. 4,968,428 and French Patent No. 2,791,578 (with it U.S. equivalent U.S. Patent No. 6,537,452). The non-obviousness is enhanced by page 2, lines 1-22 of the specification indicating the claimed combination overcomes the disadvantages of U.S. Patent No. 4,968,428 and French Patent No. 2,791,578.

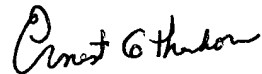
Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

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accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication should be directed to E. Therkorn at telephone number (571) 272-1149. The official fax number is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Ernest G. Therkorn
Primary Examiner
Art Unit 1723

EGT
January 24, 2005